a first laser diode operating with an output beam having a first wavelength,

a second laser diode operating with an output beam having a second wavelength different from said first wavelength,

optical means for either directing the output beam of said first laser diode at a said compact disk when carried by said disk support and drive means or directing the output beam of said second laser diode at a said digital versatile disk when carried by said disk support and drive means, [and]

a single element objective lens optically positioned between said disk support and drive means on one end and said first and second laser diodes on another end,

said single element objective lens having a central aperture zone and an outer aperture zone, said central aperture zone being profiled to operate at a first numerical aperture (NA) and said output beam of said first laser diode being optically confined to said central aperture zone, [and]

said outer aperture zone together with said central aperture zone being profiled to operate at a second numerical aperture (NA) and wherein said output beam of said second laser diode has ray fans extending across the full aperture of said lens, and

diffractive means carried by said single element objective lens, said diffractive means providing sufficient aspheric surface power for spherical aberration correction and providing correction for spherochromatism.

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2. (amended) The apparatus of claim 1 wherein said lens has first and second surfaces, and said first surface is located closer to said disk support and drive means than said second surface and [further comprising] said diffractive means is carried by said second surface[, said diffractive means providing sufficient aspheric surface power for spherical aberration correction and providing correction for spherochromatism].

3. (amended) The apparatus of claim 1 wherein said lens has first and second surfaces, and said first surface is located closer to said disk support and drive means than said second surface and [further comprising] said diffractive means is carried by said first surface[, said diffractive means providing sufficient aspheric surface power for spherical aberration correction and providing correction for spherochromatism].

4. (amended) The apparatus of claim [2] 1 wherein said diffractive means provides sufficient correction for spherical aberration and for spherochromatism that said single element objective lens achieves diffraction-limited image quality for both CD and DVD formats.

5. (amended) An optical disk reader or optical read/write system capable of operating in either a compact disk (CD) or digital versatile disk (DVD) format, comprising:

disk support and drive means capable of supporting and driving either a compact disk having a [cover plate] <u>disk substrate</u> of thickness 2X or a digital versatile disk having a [cover plate] <u>disk substrate</u> of thickness X,

a first laser diode operating with an output beam wavelength of approximately 780 nm,

a second laser diode operating with an output beam wavelength of approximately 650 nm,

optical means for either directing the output beam of said first laser diode at a said compact disk when carried by said disk support and drive means or directing the output beam of said second laser diode at a said digital versatile disk when carried by said disk support and drive means, [and]

a single element objective lens optically positioned between said disk support and drive means on one end and said first and second laser diodes on another end, said single element objective lens having first and second surfaces, said first surface having an aspheric profile,

said single element objective lens having a central aperture zone and an outer aperture zone, said central aperture zone being profiled to operate at approximately a 0.45 numerical aperture (NA) and said output beam of said first laser diode being optically confined to said central aperture zone, [and]

said outer aperture zone together with said central aperture zone being profiled to operate at approximately a 0.60 numerical aperture (NA) and wherein said output beam of said